

IN THE CLAIMS

Please amend the claims as follows. Please amend claims 21 and 29. Please cancel claims 36 and 37.

For the Examiner's convenience, all pending claims are included below.

1-20 (Cancelled)

b1 21. (Currently amended) A wafer processing apparatus comprising:

a processing chamber defined by a lower wall, an upper wall and side walls extending from the lower wall to the upper wall, a wafer supply opening being formed in one of the walls for transferring a wafer into the chamber;

a susceptor in the chamber on which the wafer can be located so that an upper surface of the wafer faces the upper wall;

a manifold component located on the chamber and, together with the upper surface of the upper wall, defining a manifold cavity;

an exhaust line connected to the gas chamber, for flowing a gas from the chamber, connected such that the gas has a tendency to flow toward the exhaust line; and

a gas supply line connected to the manifold component, wherein the upper wall has a plurality of gas supply openings, each formed into an upper surface and out of a lower surface thereof, lower ends of at least some of the gas supply openings extending at an angle other than at right angles relative to the upper surface of the wafer so that a gas, when exiting the openings, flows at an angle other than at right angles relative to the upper surface, to create a flow pattern from the openings which counteracts the tendency of the gas to flow toward the exhaust line, and thus promotes even processing over the upper surface of the wafer; and

~~an exhaust line connected to the gas chamber, for flowing a gas from the chamber.~~

22. (Previously added) The apparatus of claim 21 wherein, when viewed from above, at least some of the openings each have a lower end which is displaced relative to an upper end thereof.

23. (Previously added) The apparatus of claim 22 wherein there are first and second ones of the openings on opposing sides of a point on the upper wall, the first opening having a lower end which is angularly displaced relative to an upper end thereof in a selected direction about the point, and the second opening having a lower end which is angularly displaced relative to an upper end thereof in the selected direction, so that the openings jointly create a circular gas flow pattern in the chamber.

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24. (Previously added) The apparatus of claim 22 wherein there are first and second ones of the openings, the first opening having a lower end which is displaced in a first direction relative to an upper end thereof, and the second opening having a lower end which is displaced in a second, opposing direction relative to an upper end thereof.

25. (Previously added) The apparatus of claim 24 wherein a third of the openings, on a side of the second opening opposing the first opening, has a lower end which is displaced in the first direction relative to an upper end thereof.

26. (Previously added) The apparatus of claim 21 wherein the exhaust line is connected at an exhaust location which is off-center with respect to a center point of the wafer, when viewed

from above, so that the gas exits out of the wafer at the exhaust location which is off-center with respect to a center point of the wafer.

27. (Previously added) The apparatus of claim 26 wherein a channel is defined within the chamber, the channel being concentric with the wafer, gas flowing radially outwardly over the wafer into the channel, and from the channel to the exhaust location and into the exhaust line.

28. (Previously added) The apparatus of claim 27 wherein the openings are formed to increase a flowrate of the gas over the wafer farther from the exhaust location.

29. (Currently amended) A wafer processing apparatus, comprising:

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a processing chamber defined by a lower wall, an upper wall and side walls extending from the lower wall to the upper wall, a wafer supply opening being formed in one of the walls for transferring a wafer into the chamber;

a susceptor in the chamber on which the wafer can be located so that an upper surface of the wafer faces the upper wall;

a manifold component located on the chamber and, together with the upper surface of the upper wall, defining a manifold cavity;

an exhaust line connected to the gas chamber, for flowing a gas from the chamber, connected such that the gas has a tendency to flow toward the exhaust line; and

a gas supply line connected to the manifold component, wherein the upper wall has a plurality of gas supply openings, each formed into an upper surface and out of a lower surface thereof, the gas supply openings being nonuniformly distributed over the upper wall to create a

flow pattern that counteracts the tendency of the gas to flow toward the exhaust line, and thus
promotes even processing over the upper surface of the wafer; ~~and~~
~~an exhaust line connected to the gas chamber for flowing a gas from the chamber.~~

30. (Previously added) The apparatus of claim 29 wherein the openings are more densely located on one side of the upper wall than on another side thereof.

31. (Previously added) The apparatus of claim 30 wherein the openings are substantially equal in size.

32. (Previously added) The apparatus of claim 29 wherein flow of gas in the chamber is laminar.

33. (Previously added) The apparatus of claim 29 wherein the exhaust line is connected at an exhaust location which is off-center with respect to a center point of the wafer, when viewed from above, so that the gas exits out of the chamber at the exhaust location which is off-center with respect to a center point of the wafer.

34. (Previously added) The apparatus of claim 33 wherein a channel is defined within the chamber, the channel being concentric with the wafer, gas flowing radially outwardly over the wafer into the channel, from the channel, to the exhaust location into the exhaust line.

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35. (Previously added) The apparatus of claim 34 wherein the openings are more densely located farther from the exhaust location.

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36-37 (Cancelled)
